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CENTRAL FAX CENTER

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE APR 04 2005  
(Atty. Docket No. 100176)

First Inventor: Roland K. SEVILLA

Application./Serial No.: 10/601,601

Filing Date: 23-Jun-03

Title: POLISHING PAD FOR  
ELECTROCHEMICAL  
MECHANICAL POLISHING

Examiner: M. Rachuba

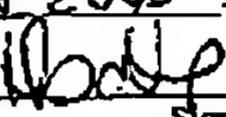
Group Art Unit: 3723

CERTIFICATE OF FACSIMILE TRANSMISSION

I, Maricjose Monsalve, hereby certify that this Petition for Withdrawal of Abandonment is being faxed to:

(703) 872-9306  
Mail Stop Petition  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA, 22313-1450

on 04 Apr 2005



Signature

PETITION UNDER 37 C.F.R. §1.181  
TO WITHDRAW THE HOLDING OF ABANDONMENT

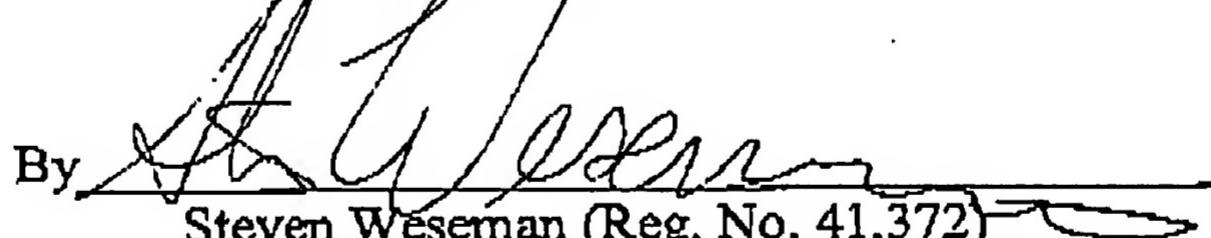
The petitioner respectfully requests that the abandonment set forth in the notice mailed by the office on March 3, 2005 be withdrawn.

In support of this petition the following are submitted:

- (A) A true copy of the Notice of Abandonment;
- (B) A true copy of the Applicant's Response and Election filed on August 4, 2004;
- (C) A true copy of the facsimile transmittal confirmation

No fee is required for this petition. The applicant respectfully requests that the active status of this application be acknowledged and the holding of abandonment be withdrawn.

Respectfully submitted,

By   
Steven Weseman (Reg. No. 41,372)

Legal Department  
Cabot Microelectronics Corporation  
870 North Commons Drive  
Aurora, Illinois 60504  
Tel. (630) 375-5465

04/04/2005 10:32 FAX 630 499 2654

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UNITED STATES PATENT AND TRADEMARK OFFICE

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Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,601	06/23/2003	Roland K. Scvilla	100176X219814	1503

29050 7590 03/03/2005  
STEVEN D WESEMAN, ASSOCIATE GENERAL COUNSEL, IP  
CABOT MICROELECTRONICS CORPORATION  
870 NORTH COMMONS DRIVE  
AURORA, IL 60504

EXAMINER	
RACHUBA, MAURINA T	
ART UNIT	PAPER NUMBER
CABOT MICROELECTRONICS	
RECEIVED	
DATE MAILED: 03/03/2005	
MAR 03 2005	
LAW DEPARTMENT	

Please find below and/or attached an Office communication concerning this application or proceeding.

DOCKETED



Notice of Abandonment	Application No. 10/601,601 Examiner M Rachuba	Applicant(s) SEVILLA, ROLAND K. Art Unit 3723
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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

This application is abandoned in view of:

1.  Applicant's failure to timely file a proper reply to the Office letter mailed on 28 July 2004.
  - (a)  A reply was received on \_\_\_\_\_ (with a Certificate of Mailing or Transmission dated \_\_\_\_\_), which is after the expiration of the period for reply (including a total extension of time of \_\_\_\_\_ month(s)) which expired on \_\_\_\_\_.
  - (b)  A proposed reply was received on \_\_\_\_\_, but it does not constitute a proper reply under 37 CFR 1.113 (a) to the final rejection. (A proper reply under 37 CFR 1.113 to a final rejection consists only of: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114).
  - (c)  A reply was received on \_\_\_\_\_ but it does not constitute a proper reply, or a bona-fide attempt at a proper reply, to the non-final rejection. See 37 CFR 1.85(a) and 1.111. (See explanation in box 7 below).
  - (d)  No reply has been received.
2.  Applicant's failure to timely pay the required issue fee and publication fee, if applicable, within the statutory period of three months from the mailing date of the Notice of Allowance (PTOL-85).
  - (a)  The issue fee and publication fee, if applicable, was received on \_\_\_\_\_ (with a Certificate of Mailing or Transmission dated \_\_\_\_\_), which is after the expiration of the statutory period for payment of the issue fee (and publication fee) set in the Notice of Allowance (PTOL-85).
  - (b)  The submitted fee of \$\_\_\_\_\_ is insufficient. A balance of \$\_\_\_\_\_ is due. The issue fee required by 37 CFR 1.18 is \$\_\_\_\_\_. The publication fee, if required by 37 CFR 1.18(d), is \$\_\_\_\_\_.
  - (c)  The issue fee and publication fee, if applicable, has not been received.
3.  Applicant's failure to timely file corrected drawings as required by, and within the three-month period set in, the Notice of Allowability (PTO-37).
  - (a)  Proposed corrected drawings were received on \_\_\_\_\_ (with a Certificate of Mailing or Transmission dated \_\_\_\_\_), which is after the expiration of the period for reply.
  - (b)  No corrected drawings have been received.
4.  The letter of express abandonment which is signed by the attorney or agent of record, the assignee of the entire interest, or all of the applicants.
5.  The letter of express abandonment which is signed by an attorney or agent (acting in a representative capacity under 37 CFR 1.34(a)) upon the filing of a continuing application.
6.  The decision by the Board of Patent Appeals and Interference rendered on \_\_\_\_\_ and because the period for seeking court review of the decision has expired and there are no allowed claims.
7.  The reason(s) below:


 M. Rachuba  
 Primary Examiner  
 Art Unit: 3723
 

Petitions to revive under 37 CFR 1.137(a) or (b), or requests to withdraw the holding of abandonment under 37 CFR 1.181, should be promptly filed to minimize any negative effects on patent term.

04/04/2005 10:33 FAX 630 499 2654

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08/04/2004 14:37 FAX 630 499 2654

CABOT MICRO

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\*\*\* TX REPORT \*\*\*  
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TRANSMISSION OK

TX/RX NO	0557
CONNECTION TEL	917038729306
SUBADDRESS	
CONNECTION ID	CENTRAL FAX
ST. TIME	08/04 14:35
USAGE T	01'55
PGS. SENT	6
RESULT	OK

Comparable to FORM PTO-1083

PATENT

Attorney Docket No. 100176

Date: August 4, 2004

In re Application of: Roland K. SEVILLA

Application No. 10/601,601

Filed: 23-Jun-03

For: POLISHING PAD FOR ELECTROCHEMICAL-MECHANICAL POLISHING

Mail Stop AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Transmitted herewith is a response to an office action in the subject application.

- Small entity status is claimed for this application under 37 CFR 1.27.
- Petition for an extension of time for the period stated below, as well as for any additional period necessary to render the present submission timely. Please charge Deposit Account No. 501599 for the appropriate petition fee.
- Other:
- Please charge Deposit Account No. 501599 in the total amount indicated below.

					SMALL ENTITY		OTHER THAN A SMALL ENTITY	
TIME EXTENSION PETITION FEE			One month		\$ 0.00		\$0.00	
	subtract time extension fee previously paid		none		(\$ 0.00)		(\$ 0.00)	
							\$0.00	
CLAIM FEE	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	EXTRA CLAIMS PRESENT	SMALL ENTITY RATE	ADDT. CLAIM FEE	LARGE ENTITY RATE	ADDT. CLAIM FEE
TOTAL	21	MINUS	26	0	8	\$	18	\$
INDEPENDENT	1	MINUS	1	0	43	\$	86	\$
<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE CLAIM					145	\$	290	\$
<b>TOTAL AMOUNT TO BE CHARGED TO DEPOSIT ACCOUNT</b>					<b>TOTAL</b>	<b>\$</b>	<b>TOTAL</b>	<b>\$0</b>

Comparable to FORM PTO-1083

PATENT

Attorney Docket No. 100176

Date: August 4, 2004

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APR 04 2005

Sir:

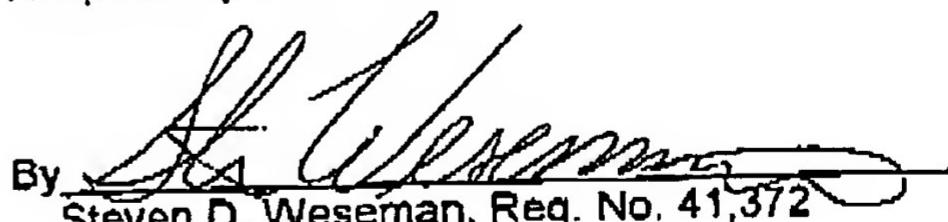
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<b>TOTAL AMOUNT TO BE CHARGED TO DEPOSIT ACCOUNT</b>					<b>TOTAL</b>	<b>\$</b>	<b>TOTAL</b>	<b>\$0</b>

- The Commissioner is hereby authorized to charge any deficiencies in the following fees associated with this communication or credit any overpayment to Deposit Account No. 501599.
- Any filing fees under 37 CFR 1.16 for the presentation of extra claims.
- Any patent application processing fees under 37 CFR 1.17.

Respectfully submitted,

By   
 Steven D. Weseman, Reg. No. 41,372

Legal Department  
 Cabot Microelectronics Corporation  
 870 North Commons Drive  
 Aurora, IL, 60504  
 (630)

375-5465

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
(Atty. Docket No. 100176)RECEIVED  
CENTRAL FAX CENTER

First Inventor: Roland K. SEVILLA

Serial No.: 10/601,601

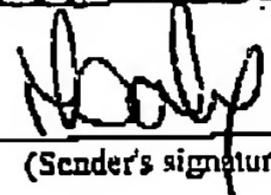
Filing Date: 23-Jun-03

Examiner: Maurina T. Rachuba

Art Unit: 3723

Title: POLISHING PAD FOR  
ELECTROCHEMICAL-MECHANICAL  
POLISHING

APR 04 2005

<u>Certificate of Facsimile Transmission</u>	
I, Mariejose Monsalve, hereby certify that this paper and enclosure(s), if any, are hereby being transmitted to the USPTO's Centralized Facsimile Number for Official Patent Application Related Correspondence, facsimile No. (703) 872- 9306 on <u>04 AUG 2005</u> .	
 (Sender's signature)	

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA, 22313-1450

## RESPONSE AND ELECTION

In response to the Office Action of July 28, 2004, please amend the above-identified application as follows:

Amendments to the Claims are reflected in the listing of claims that begins on page 2 of this paper.

Remarks/Arguments begin on page 5 of this paper.

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8/4/2004 Response and Election  
USSN 10/601,601

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CLAIM AMENDMENTS

1. (Original) A polishing pad comprising a body having (a) a top surface comprising a first set of grooves with a first depth and first width and (b) a bottom surface comprising a second set of grooves with a second depth and second width, wherein the first set of grooves and second set of grooves are interconnected and are oriented such that they are not aligned.
2. (Original) The polishing pad of claim 1, wherein the first and second sets of grooves have a cross-sectional shape selected from the group consisting of lines, curves, circles, ovals, squares, rectangles, triangles, diamonds, and combinations thereof.
3. (Original) The polishing pad of claim 2, wherein the grooves are linear grooves.
4. (Original) The polishing pad of claim 3, wherein the first and second sets of grooves are non-parallel.
5. (Original) The polishing pad of claim 1, wherein the polishing pad has a void volume of about 30% or more.
6. (Original) The polishing pad of claim 5, wherein the polishing pad has a void volume of about 70% or more.
7. (Original) The polishing pad of claim 1, wherein the first set of grooves is rotated by an angle of about 10° to about 90° relative to the second set of grooves.
8. (Original) The polishing pad of claim 7, wherein the angle is about 90°.
9. (Original) The polishing pad of claim 1, wherein a first depth of the first set of grooves and a second depth of the second set of grooves combine to have a total groove depth that is about equal to or greater than the thickness of the polishing pad.

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USSN 10/601,601

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10. (Original) The polishing pad of claim 9, wherein the first set of grooves and second set of grooves are interconnected by primary channels that are oriented perpendicular to the top surface of the polishing pad.

11. (Original) The polishing pad of claim 10, further comprising a plurality of secondary channels extending through the thickness of the polishing pad.

12. (Original) The polishing pad of claim 1, wherein a first groove depth of the first set of grooves and a second groove depth of the second set of grooves combine to have a total groove depth that is less than the thickness of the polishing pad.

13. (Original) The polishing pad of claim 12, wherein the first and second sets of grooves are interconnected by a plurality of secondary channels extending through the thickness of the polishing pad.

14. (Original) The polishing pad of claim 1, wherein the first set of grooves, the second set of grooves, or a combination thereof have an average groove width of about 0.1 mm to about 2 mm.

15. (Original) The polishing pad of claim 1, wherein the first groove width and the second groove width increase from one side of the polishing pad to the other side of the polishing pad.

16. (Original) The polishing pad of claim 1, wherein the body comprises a polymer resin selected from the group consisting of thermoplastic elastomers, thermoplastic polyurethanes, thermoplastic polyolefins, polycarbonates, polyvinylalcohols, nylons, elastomeric rubbers, elastomeric polyethylenes, polytetrafluoroethylenes, polyethyleneterephthalates, polyimides, polyaramides, polyarylenes, polyacrylates, polystyrenes, polymethylmethacrylates, copolymers thereof, and mixtures thereof.

17. (Original) The polishing pad of claim 16, wherein the polymer resin is a thermoplastic polyurethane resin.

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8/4/2004 Response and Election  
USSN 10/601,601

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18. (Original) The polishing pad of claim 1, wherein the body of the polishing pad further comprises abrasive particles.

19. (Original) The polishing pad of claim 1, wherein the polishing pad is conductive.

20. (Original) The polishing pad of claim 19, wherein the body of the polishing pad further comprises conductive elements.

21. (Original) The polishing pad of claim 19, wherein the body of the polishing pad further comprises a conductive polymer.

22-26. (Canceled)

Legal Department  
CABOT MICROELECTRONICS CORPORATION  
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Aurora, IL 60504  
(630) 375-5465

8/4/2004 Response and Election  
USSN 10/601,601

Page 5 of 5

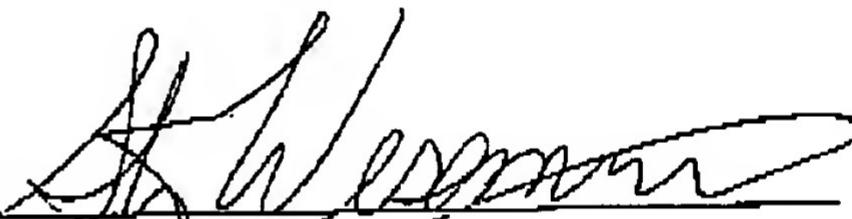
REMARKS

The Examiner has determined that the present application as filed contains claims directed to at least two groups of distinct inventions. In particular, the groups, as determined by the Examiner, are:

- I. Claims 1-21, drawn to a polishing pad, classified in class 451, subclass 526;
- II. Claims 22-26, drawn to a method of polishing, classified in class 438, subclass 692.

Applicants hereby elect to pursue claims in Group I (claims 1-21) in the present application. Accordingly, non-elected claims 22-26 are canceled without prejudice, and may be pursued in a divisional application. This election is made without traverse. An early action on the merits is solicited.

Respectfully submitted,

By:   
Steven D. Weseinian  
Reg. No. 41,372  
Attorney for Applicant(s)

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